

## **RAW SEQUENCE LISTING**

**The Biotechnology Systems Branch of the Scientific and Technical  
Information Center (STIC) no errors detected.**

Application Serial Number: 10/583,218  
Source: IFW0  
Date Processed by STIC: 02/28/2007

# ***ENTERED***



IFWO

## RAW SEQUENCE LISTING

DATE: 02/28/2007

PATENT APPLICATION: US/10/583,218

TIME: 14:17:47

Input Set : N:\efs\02\_28\_07\10583218\_efs\seq-list.txt

Output Set: N:\CRF4\02282007\J583218.raw

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3 <110> APPLICANT: Applied Research Systems ARS Holding N.V.
5 <120> TITLE OF INVENTION: NOVEL CC-CHEMOKINE BINDING TICK PROTEINS
7 <130> FILE REFERENCE: WO956
C--> 9 <140> CURRENT APPLICATION NUMBER: US/10/583,218
C--> 9 <141> CURRENT FILING DATE: 2006-06-16
9 <150> PRIOR APPLICATION NUMBER: EP03104973.7
10 <151> PRIOR FILING DATE: 2003-12-24
12 <160> NUMBER OF SEQ ID NOS: 10
14 <170> SOFTWARE: PatentIn version 3.2
16 <210> SEQ ID NO: 1
17 <211> LENGTH: 744
18 <212> TYPE: DNA
19 <213> ORGANISM: ectromelia virus
21 <400> SEQUENCE: 1
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24 cttcagcaat cattcgcatc ctctgtgtacg gaagaagaaa acaaccatca tatgggaatc      120
26 gatgttatta tcaaagtcac caagcaagac caaacaccga ctaatgataa gattttgtcaa      180
28 tcagtaaccg aagttacaga gtctgaagac gatggggtat ccgaagaagt cgtaaaagga      240
30 gatcccacca cttattacac tgctgtcggt ggaggtctga gaatgaactt tggattcacc      300
32 aaatgtcctc agattaaatc catctcagaa tccgtctgat gaaacacagt gaatgctcgg      360
34 ttgtctagcg tctctccaat gtacggcatt gaatctccag ccatcactca tgaagaagct      420
36 cttgctatga tcaacgactg tgcggtgtct atcaatatca aatgtagtga agaagagaaa      480
38 gacagcaaca tcaagaccac tccagtactc ggggtctaaca tctctcataa gaaagtgagg      540
40 tacgaagata tcatcggttc aacgatcgtc gatataaaat gtgtcaagga tctagagttt      600
42 agcgttcgta tcggagacat gtgcaaggaa gcatctgaac ttgaagtcaa ggatggattc      660
44 aagtatatcg acggatcggt atctgaaggt gcaaccgatg atacttcact catcgattca      720
46 acaaaaactca aagcgtgtgt ctga                                         744
49 <210> SEQ ID NO: 2
50 <211> LENGTH: 247
51 <212> TYPE: PRT
52 <213> ORGANISM: ectromelia virus
54 <400> SEQUENCE: 2
56 Met Lys Gln Tyr Ile Val Leu Ala Cys Ile Cys Leu Ala Ala Ala Ala
57 1           5           10           15
60 Ile Pro Thr Ser Leu Gln Gln Ser Phe Ala Ser Ser Cys Thr Glu Glu
61           20           25           30
64 Glu Asn Asn His His Met Gly Ile Asp Val Ile Ile Lys Val Thr Lys
65           35           40           45
68 Gln Asp Gln Thr Pro Thr Asn Asp Lys Ile Cys Gln Ser Val Thr Glu
69           50           55           60
72 Val Thr Glu Ser Glu Asp Asp Gly Val Ser Glu Glu Val Val Lys Gly
73 65           70           75           80
76 Asp Pro Thr Thr Tyr Tyr Thr Val Val Gly Gly Gly Leu Arg Met Asn

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77          85          90          95
80 Phe Gly Phe Thr Lys Cys Pro Gln Ile Lys Ser Ile Ser Glu Ser Ala
81          100          105          110
84 Asp Gly Asn Thr Val Asn Ala Arg Leu Ser Ser Val Ser Pro Met Tyr
85          115          120          125
88 Gly Ile Glu Ser Pro Ala Ile Thr His Glu Glu Ala Leu Ala Met Ile
89          130          135          140
92 Asn Asp Cys Ala Val Ser Ile Asn Ile Lys Cys Ser Glu Glu Glu Lys
93 145          150          155          160
96 Asp Ser Asn Ile Lys Thr His Pro Val Leu Gly Ser Asn Ile Ser His
97          165          170          175
100 Lys Lys Val Arg Tyr Glu Asp Ile Ile Gly Ser Thr Ile Val Asp Ile
101          180          185          190
104 Lys Cys Val Lys Asp Leu Glu Phe Ser Val Arg Ile Gly Asp Met Cys
105          195          200          205
108 Lys Glu Ala Ser Glu Leu Glu Val Lys Asp Gly Phe Lys Tyr Ile Asp
109          210          215          220
112 Gly Ser Val Ser Glu Gly Ala Thr Asp Asp Thr Ser Leu Ile Asp Ser
113 225          230          235          240
116 Thr Lys Leu Lys Ala Cys Val
117          245
120 <210> SEQ ID NO: 3
121 <211> LENGTH: 585
122 <212> TYPE: DNA
123 <213> ORGANISM: Rhipicephalus sanguineus
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128 atgcgcactt tcgggggttc tcttttcggt ctctctcgca ttagtgctgc ttactgtgac      120
130 gtccaagagc gcggccatac ttacgtgacc aaaaatgtga cggtcgaaaa cggtgccctgc      180
132 gtgtttgaac gcaacgtcat tccggatggt gaaaccaaag cactgaacag cccatgcgtc      240
134 attccacat gctatgcagc tgaccgtaaa gtgaactcga ctctctgccc gaacttcgga      300
136 gttgcggagg gctgccatgt ggagtggacc cccgatggtg aatacccgaa ctgctgcccg      360
138 aagcatgtgt gccctacggc cctgtttact tcttaatcgc atcacatctg cgaaaatgaa      420
140 acgtcgagac attcttcttt atgccttaag aaattaaact gcaacgtccg caaaaataca      480
142 tccccgcttc aaatacgaac aaaatgcagg atcaaagtct attaggtttc atgctgagtg      540
144 caagctaaaa taaacaactg aatcagcggt taataaaaaa aaaaa      585
147 <210> SEQ ID NO: 4
148 <211> LENGTH: 111
149 <212> TYPE: PRT
150 <213> ORGANISM: Rhipicephalus sanguineus
152 <400> SEQUENCE: 4
154 Met Arg Thr Phe Gly Ala Ser Leu Phe Val Leu Leu Ala Ile Ser Val
155 1          5          10          15
158 Ala Tyr Cys Asp Val Gln Glu Arg Gly His Thr Tyr Val Thr Lys Asn
159          20          25          30
162 Val Thr Val Glu Asn Gly Ala Cys Val Phe Glu Arg Asn Val Ile Pro
163          35          40          45
166 Asp Gly Glu Thr Lys Ala Leu Asn Ser Pro Cys Val Ile Ser Thr Cys
167          50          55          60

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170 Tyr Ala Ala Asp Arg Lys Val Asn Ser Thr Leu Cys Pro Asn Phe Gly
171 65                      70                      75                      80
174 Val Ala Glu Gly Cys His Val Glu Trp Thr Pro Asp Gly Glu Tyr Pro
175                      85                      90                      95
178 Asn Cys Cys Pro Lys His Val Cys Pro Thr Ala Pro Val Thr Ser
179                      100                      105                      110
182 <210> SEQ ID NO: 5
183 <211> LENGTH: 420
184 <212> TYPE: DNA
185 <213> ORGANISM: Rhipicephalus sanguineus
187 <400> SEQUENCE: 5
188 gacgtccaag agcgcggcca tacttacgtg accaaaaatg tgacggtcga aaacgggtgcc      60
190 tgcgtggttg aacgcaacgt cattccggtg ggtgaaacca aagcactgaa cagcccatgc      120
192 gtcatttcca catgctatgc agctgaccgt aaagtgaact cgactctctg cccgaacttc      180
194 ggagttgcgg agggctgcca tgtggagtgg acccccgatg gtgaataccc gaactgctgc      240
196 ccgaagcatg tgtgccctac ggcccctgtt acttcttaat cgcatacat ctgcgaaaat      300
198 gaaacgtcga gacattcttc tttatgcctt aagaaattaa actgcaacgt ccgcaaaaat      360
200 acatccccgc ttcaaatacg aacaaaatgc aggatcaaat gctattaggt ttcatgctga      420
203 <210> SEQ ID NO: 6
204 <211> LENGTH: 92
205 <212> TYPE: PRT
206 <213> ORGANISM: Rhipicephalus sanguineus
208 <400> SEQUENCE: 6
210 Asp Val Gln Glu Arg Gly His Thr Tyr Val Thr Lys Asn Val Thr Val
211 1                      5                      10                      15
214 Glu Asn Gly Ala Cys Val Phe Glu Arg Asn Val Ile Pro Asp Gly Glu
215                      20                      25                      30
218 Thr Lys Ala Leu Asn Ser Pro Cys Val Ile Ser Thr Cys Tyr Ala Ala
219                      35                      40                      45
222 Asp Arg Lys Val Asn Ser Thr Leu Cys Pro Asn Phe Gly Val Ala Glu
223                      50                      55                      60
226 Gly Cys His Val Glu Trp Thr Pro Asp Gly Glu Tyr Pro Asn Cys Cys
227 65                      70                      75                      80
230 Pro Lys His Val Cys Pro Thr Ala Pro Val Thr Ser
231                      85                      90
234 <210> SEQ ID NO: 7
235 <211> LENGTH: 515
236 <212> TYPE: DNA
237 <213> ORGANISM: Amblyomma variegatum
239 <400> SEQUENCE: 7
240 gttgagctag tgcaagctca cttttacgtc ctgcttcggg gcaagatcac acacccaaaa      60
242 tgcgtgcgct cgttgcttta gcctgtgtcg tagtcagtgt tgcggtagtc atcggcgaca      120
244 tccaggaaca tggccactcc tacttgaaga ggaatgtgac tatagagaac ggtgcctgca      180
246 tctatgagcg caacacactt cctgatgggt aaaccaaggc actccacgac ccctgcgtca      240
248 ttgcaacctg ctacgtgtaa aggcgcgaag tgaatgccac cctgtgcccc aacttcgggtg      300
250 tggatcctgg ttgtagggtg cagtggaccc ccgacggcat ctatccagaa tgctgcccga      360
252 aacaagtgtg cgatggcaca aactgagtcg aatgcatttc ttttgcaaat gcctgtttcg      420
254 agctgccacg tccaaataca ctgatgactc caagttactc agccggaaaa ttcactttcc      480
256 gtaaacagggt ttaagattca ataaacattt ctgaa      515

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259 <210> SEQ ID NO: 8
260 <211> LENGTH: 108
261 <212> TYPE: PRT
262 <213> ORGANISM: Amblyomma variegatum
264 <400> SEQUENCE: 8
266 Met Arg Ala Leu Val Ala Leu Ala Cys Val Val Val Ser Val Ala Val
267 1          5          10          15
270 Val Ile Gly Asp Ile Gln Glu His Gly His Ser Tyr Leu Lys Arg Asn
271          20          25          30
274 Val Thr Ile Glu Asn Gly Ala Cys Ile Tyr Glu Arg Asn Thr Leu Pro
275          35          40          45
278 Asp Gly Glu Thr Lys Ala Leu His Asp Pro Cys Val Ile Ala Thr Cys
279          50          55          60
282 Tyr Ala Glu Arg Arg Glu Val Asn Ala Thr Leu Cys Pro Asn Phe Gly
283 65          70          75          80
286 Val Asp Pro Gly Cys Arg Val Gln Trp Thr Pro Asp Gly Ile Tyr Pro
287          85          90          95
290 Glu Cys Cys Pro Lys Gln Val Cys Asp Gly Thr Asn
291          100          105
294 <210> SEQ ID NO: 9
295 <211> LENGTH: 396
296 <212> TYPE: DNA
297 <213> ORGANISM: Ixodes scapularis
299 <400> SEQUENCE: 9
300 atgaggtcaa tcgttctatg ggctctgatc gccttgggag gtgtgccact tctcatggga      60
302 gccgctaata aaagccaccc ttatggagtt tcatttaata acggtacatg tacgtaccga      120
304 aatataacgc tgagagatgg agactctgaa ccttttcaat acccatgtga atattggaat      180
306 tgcaatgtta cagcaagaac actaactatt gaggggtgcg gtgttcacg atacggaagt      240
308 tgcctgtacg tgcacaatta taatttctac tggcctcttt gctgtcgcat gagtcgtctc      300
310 tgttgaaaca attaactaat ttaccttcac ttctatcaga acactttgct ggtaaataaa      360
312 aaaagaaaac aacaaaaaaa aaaaaaaa aaaaaa      396
315 <210> SEQ ID NO: 10
316 <211> LENGTH: 101
317 <212> TYPE: PRT
318 <213> ORGANISM: Ixodes scapularis
320 <400> SEQUENCE: 10
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323 1          5          10          15
326 Leu Leu Met Gly Ala Ala Asn Gln Ser His Pro Tyr Gly Val Ser Phe
327          20          25          30
330 Asn Asn Gly Thr Cys Thr Tyr Arg Asn Ile Thr Leu Arg Asp Gly Asp
331          35          40          45
334 Ser Glu Pro Phe Gln Tyr Pro Cys Glu Tyr Trp Asn Cys Asn Val Thr
335          50          55          60
338 Ala Arg Thr Leu Thr Ile Glu Gly Cys Gly Val Pro Arg Tyr Gly Ser
339 65          70          75          80
342 Cys Leu Tyr Val His Asn Tyr Asn Phe Tyr Trp Pro Leu Cys Cys Arg
343          85          90          95
346 Met Ser Arg Leu Cys

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**VERIFICATION SUMMARY**

PATENT APPLICATION: US/10/583,218

DATE: 02/28/2007

TIME: 14:17:48

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Output Set: N:\CRF4\02282007\J583218.raw

L:9 M:270 C: Current Application Number differs, Replaced Current Application No

L:9 M:271 C: Current Filing Date differs, Replaced Current Filing Date